

Scaled data based on original data using

LM-41-14 Approved Method for Photometric Testing Of Indoor Fluorescent Luminaires

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: io LED

Report Number: P281490

Luminaire Tested: **LDA2B108035D010 EU2B10SP158035 2LBASQC1MW**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P281490
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1808-908-6)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LDA2B108035D010 EU2B10SP158035 2LBASQC1MW
Description: PORTFOLIO 2IN ADJ 1000 LUMEN LED LUMINAIRE WITH SPOT OPTIC AND 2in Adj SQ Cast Trim, MW
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1093.9 lumens
Efficiency: N/A
Efficacy: 109.4 lumens/watt
Spacing Criteria (0/90/45): 0.31 / 0.31 / 0.29
Luminous Opening: Circular (Dia: 0.17' x H: 0')
CIE Type: Direct

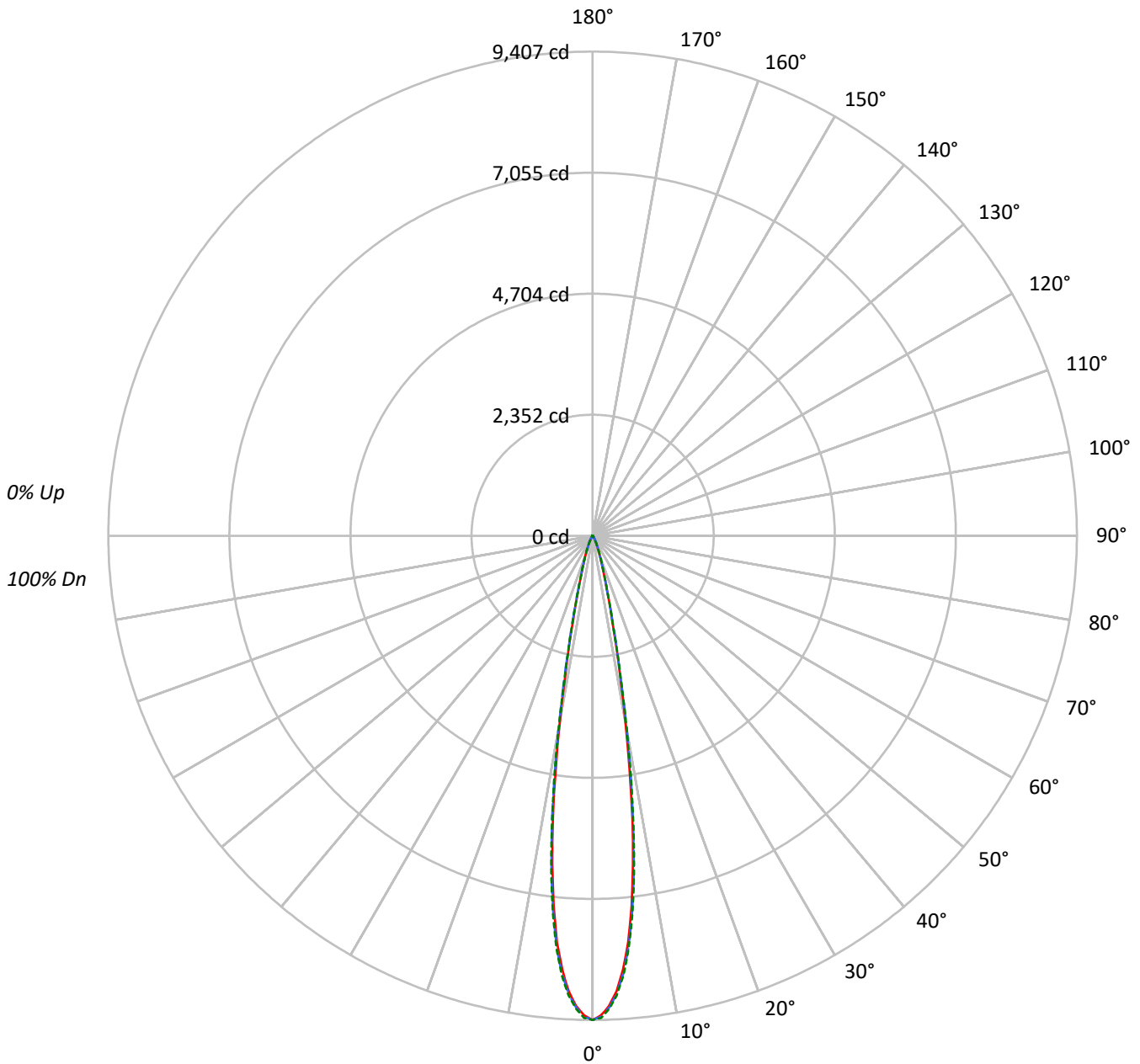
Input Watts (W): 10
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|---|--|--|--|--|--|--|----|--|--|--|--|--|--|--|--|---|
| RF | 20 | | | | | | | | | 20 | | | | | | | | | 20 | | | | | | | | | 20 | | | | | | | | | |
| RC | 80 | | | | | | | | | 50 | | | | | | | | | 30 | | | | | | | | | 10 | | | | | | | | | 0 |
| RW | 70 | 50 | 30 | 10 | 70 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 0 | | | | | | | | | | | | | | | | |
| RCR | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0 | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 | | | | | | | | | | | | | | | | | | | |
| 1 | 116 | 114 | 112 | 111 | 113 | 112 | 110 | 109 | 108 | 107 | 106 | 104 | 103 | 102 | 101 | 100 | 99 | 98 | | | | | | | | | | | | | | | | | | | |
| 2 | 113 | 109 | 107 | 105 | 111 | 108 | 105 | 103 | 105 | 103 | 101 | 102 | 100 | 99 | 99 | 98 | 97 | 96 | | | | | | | | | | | | | | | | | | | |
| 3 | 110 | 106 | 103 | 100 | 108 | 104 | 102 | 99 | 102 | 100 | 98 | 100 | 98 | 96 | 98 | 96 | 95 | 94 | | | | | | | | | | | | | | | | | | | |
| 4 | 107 | 103 | 99 | 97 | 106 | 102 | 99 | 96 | 100 | 97 | 95 | 98 | 96 | 94 | 96 | 95 | 93 | 92 | | | | | | | | | | | | | | | | | | | |
| 5 | 105 | 100 | 96 | 94 | 103 | 99 | 96 | 93 | 97 | 95 | 93 | 96 | 94 | 92 | 95 | 93 | 91 | 90 | | | | | | | | | | | | | | | | | | | |
| 6 | 103 | 97 | 94 | 91 | 101 | 97 | 94 | 91 | 96 | 93 | 91 | 94 | 92 | 90 | 93 | 91 | 90 | 89 | | | | | | | | | | | | | | | | | | | |
| 7 | 100 | 95 | 92 | 89 | 100 | 95 | 91 | 89 | 94 | 91 | 89 | 93 | 90 | 88 | 92 | 90 | 88 | 87 | | | | | | | | | | | | | | | | | | | |
| 8 | 99 | 93 | 90 | 88 | 98 | 93 | 90 | 87 | 92 | 89 | 87 | 91 | 89 | 87 | 90 | 88 | 86 | 86 | | | | | | | | | | | | | | | | | | | |
| 9 | 97 | 91 | 88 | 86 | 96 | 91 | 88 | 86 | 90 | 88 | 86 | 90 | 87 | 85 | 89 | 87 | 85 | 84 | | | | | | | | | | | | | | | | | | | |
| 10 | 95 | 90 | 87 | 84 | 94 | 89 | 86 | 84 | 89 | 86 | 84 | 88 | 86 | 84 | 88 | 85 | 84 | 83 | | | | | | | | | | | | | | | | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|---------|---------|---------|
| 0° | 4641054 | 4641054 | 4641054 |
| 5° | 3928096 | 3969201 | 3986436 |
| 10° | 1836866 | 1906452 | 1910159 |
| 15° | 537990 | 545804 | 545549 |
| 20° | 216048 | 216310 | 216625 |
| 25° | 96353 | 106097 | 98639 |
| 30° | 40903 | 56285 | 37314 |
| 35° | 18791 | 26079 | 17526 |
| 40° | 6118 | 10176 | 5474 |
| 45° | 0 | 3698 | 0 |
| 50° | 0 | 0 | 0 |
| 55° | 1806 | 946 | 0 |
| 60° | 0 | 0 | 0 |
| 65° | 0 | 0 | 0 |
| 70° | 0 | 0 | 0 |
| 75° | 0 | 0 | 0 |
| 80° | 3125 | 0 | 0 |
| 85° | 6227 | 0 | 0 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 621.7 | 56.8 |
| 10°-20° | 352.3 | 32.2 |
| 20°-30° | 92.0 | 8.4 |
| 30°-40° | 23.7 | 2.2 |
| 40°-50° | 2.3 | 0.2 |
| 50°-60° | 0.8 | 0.1 |
| 60°-70° | 0.1 | 0.0 |
| 70°-80° | 0.8 | 0.1 |
| 80°-90° | 0.2 | 0.0 |
| 90°-100° | 0.0 | 0.0 |
| 100°-110° | 0.0 | 0.0 |
| 110°-120° | 0.0 | 0.0 |
| 120°-130° | 0.0 | 0.0 |
| 130°-140° | 0.0 | 0.0 |
| 140°-150° | 0.0 | 0.0 |
| 150°-160° | 0.0 | 0.0 |
| 160°-170° | 0.0 | 0.0 |
| 170°-180° | 0.0 | 0.0 |
| 0°-30° | 1066.1 | 97.5 |
| 0°-40° | 1089.8 | 99.6 |
| 0°-60° | 1092.9 | 99.9 |
| 0°-90° | 1094.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1093.9 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 9407 | 9407 | 9407 | 9407 | 9407 | |
| 5° | 7932 | 8002 | 8015 | 7964 | 8049 | 614 |
| 15° | 1053 | 1068 | 1069 | 1056 | 1068 | 346 |
| 25° | 177 | 192 | 195 | 186 | 181 | 88 |
| 35° | 31 | 33 | 43 | 30 | 29 | 21 |
| 45° | 0 | 2 | 5 | 0 | 0 | 2 |
| 55° | 2 | 3 | 1 | 0 | 0 | 1 |
| 65° | 0 | 0 | 0 | 0 | 0 | 1 |
| 75° | 0 | 0 | 0 | 0 | 0 | 2 |
| 85° | 1 | 0 | 0 | 0 | 0 | 1 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P281490

CATALOG NUMBER: LDA2B108035D010 EU2B10SP158035 2LBASQC1MW

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 9407.0 | 9407.0 | 9407.0 | 9407.0 | 9407.0 |
| 1° | 9318.8 | 9355.8 | 9344.7 | 9331.5 | 9368.5 |
| 2° | 9139.2 | 9175.1 | 9172.0 | 9154.5 | 9197.8 |
| 3° | 8862.4 | 8912.6 | 8912.6 | 8886.7 | 8940.6 |
| 4° | 8449.8 | 8526.4 | 8533.8 | 8497.4 | 8564.5 |
| 5° | 7931.6 | 8002.4 | 8014.6 | 7963.9 | 8049.4 |
| 6° | 7229.6 | 7326.3 | 7353.7 | 7295.1 | 7382.8 |
| 7° | 6423.0 | 6524.4 | 6566.1 | 6500.6 | 6598.9 |
| 8° | 5552.9 | 5625.8 | 5676.0 | 5601.0 | 5700.8 |
| 9° | 4579.4 | 4684.5 | 4730.5 | 4657.6 | 4754.8 |
| 10° | 3666.6 | 3763.2 | 3805.5 | 3788.1 | 3812.9 |
| 11° | 2847.8 | 2933.4 | 2961.9 | 2938.1 | 2949.7 |
| 12° | 2229.7 | 2264.1 | 2282.6 | 2266.7 | 2274.6 |
| 13° | 1693.0 | 1739.0 | 1747.4 | 1740.6 | 1744.3 |
| 14° | 1322.2 | 1344.4 | 1353.9 | 1350.7 | 1352.3 |
| 15° | 1053.3 | 1067.6 | 1068.6 | 1056.5 | 1068.1 |
| 16° | 848.4 | 859.5 | 864.2 | 851.5 | 866.9 |
| 17° | 695.2 | 704.2 | 709.4 | 696.8 | 703.1 |
| 18° | 572.1 | 579.0 | 586.4 | 575.3 | 584.8 |
| 19° | 480.2 | 484.4 | 484.9 | 481.8 | 484.4 |
| 20° | 411.5 | 409.4 | 412.0 | 406.2 | 412.6 |
| 22.5° | 271.0 | 276.3 | 282.6 | 275.7 | 278.4 |
| 25° | 177.0 | 191.8 | 194.9 | 185.9 | 181.2 |
| 26° | 145.8 | 164.8 | 173.3 | 159.0 | 143.7 |
| 27° | 121.0 | 134.7 | 145.8 | 126.8 | 114.6 |
| 28° | 106.2 | 117.8 | 128.9 | 110.9 | 96.7 |
| 29° | 88.7 | 100.4 | 119.4 | 98.8 | 89.8 |
| 30° | 71.8 | 80.3 | 98.8 | 75.0 | 65.5 |
| 32.5° | 40.7 | 47.5 | 63.9 | 44.4 | 36.4 |
| 35° | 31.2 | 33.3 | 43.3 | 29.6 | 29.1 |
| 37.5° | 26.9 | 24.3 | 33.8 | 24.3 | 19.5 |
| 40° | 9.5 | 14.3 | 15.8 | 10.6 | 8.5 |
| 42.5° | 4.2 | 4.2 | 6.9 | 2.1 | 2.1 |
| 45° | 0.0 | 2.1 | 5.3 | 0.5 | 0.0 |
| 47.5° | 0.0 | 0.0 | 1.1 | 0.0 | 0.0 |
| 50° | 0.0 | 1.1 | 0.0 | 0.0 | 0.0 |
| 52.5° | 1.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| 55° | 2.1 | 2.6 | 1.1 | 0.5 | 0.0 |
| 57.5° | 3.2 | 2.6 | 1.1 | 1.1 | 1.1 |
| 60° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 62.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 65° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 67.5° | 1.1 | 0.5 | 0.0 | 0.0 | 0.0 |



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CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-----|-------|-----|-------|-----|
| 75° | 0.0 | 0.5 | 0.0 | 0.0 | 0.0 |
| 77.5° | 5.3 | 1.1 | 1.6 | 1.1 | 2.1 |
| 80° | 1.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| 82.5° | 2.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 1.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 0.0 | 0.5 | 0.0 | 0.5 | 0.0 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



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— 0°-180° - - 45°-225° - - - - 90°-270°







| | | | | | |
|-------|-----|-----|-----|-----|-----|
| 70° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 72.5° | 2.1 | 1.6 | 0.0 | 0.0 | 2.1 |



(END OF REPORT)